# **LMA District Cover Sheet**

## **Spring 2015 Levee Inspection Results**

# **Sutter Maintenance Yard Maintenance Area 0003**

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)			
* Overall LMA Rating (Fall Only)							
	** Non-receipt of Su	ımmer or Winter Inspe	ection Reports may effec	et overall annual rating.			
* SPRING INSPECTIONS: Overall maintenance deficiencies are rated		nined for the spring ins		ual maintenance			
	<u>FALL INSPECTIONS:</u> The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. This rating is not intended to be an indiction of risk.						
Comments							

### **Unit Cover Sheet**

### **Spring 2015 Levee Inspection Results**

### **Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles
Unit No. 01 Feather River	Right	5.11

	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	04/17/2015 - 04/17/2015			
DWR Inspector	Michael Pitta			
Accompanied By				

#### **Summer & Winter Inspections**

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

### http://cdec.water.ca.gov/lma.html

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

MA0003

#### Flood Control Project Maintenance Levee Inspections

## Levee Inspection Report By Mile - Spring 2015

## **Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	04/17/2015 04/17/2015	Michael Pitta

LM Start		Rating **	Α	Issue No.		4		
LM End		Issue Type +	Ма	Location *	on * N/A			
Category	Earthen L	evee		GPS La	atituc	le/Longitude		
Calegory				Start		End		
Item	Operations & Maintenance				0		0	
item	Manuals				0		0	
DWR ID	DWR_MA0	003_01_s _ 201	3_4					
		Action/	Comme	nts				
Inspector (	Comments	: Sutter Yard	has a co	py of the C	M&(	manuals.		

No Photos

LM Start		Rating ** A				6	
LM End		Issue Type +	Location *		N/A		
Category	Category Earthen Levee			GPS La	atitud	le/Longitude	
Calegory				Start		End	
Item		cy Supplies &			0		0
пеш	Equipmer	nt			0		0
DWR ID	DWR ID DWR_MA0003_01_s _ 2013_6						
Action/Comments							

No Photos

Inspector Comments: The Sutter Yard has adequate flood fight supplies and equipment.

LM Start		Rating **	Α	Issue No.		7	
LM End		Issue Type +	Ma	Location *	n* N/A		
Category Earthen Levee			GPS La	atituc	le/Longitude		
Calegory				Start En		End	
Item	Flood Pre	paredness &	Training		0		0
item					0		0
DWR ID DWR_MA0003_01_s _ 2013_7							
Action/Comments							

No Photos

Inspector Comments: The Sutter Yard has received flood fight training.

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence
En : Enforcement

## **Levee Inspection Report By Mile - Spring 2015**

## **Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	04/17/2015 04/17/2015	Michael Pitta

LM Start	0.01	1 Rating ** M		Issue No.		8	
LM End	5.10	Issue Type +	Location *		LS		
Category	Cotogon Earthen Levee				titud	le/Longitude	
Calegory		Start		End			
Item	Vegetatio	n		38.89803	32 °		0
пеш				-121.61792	23 °		0
DWR ID DWR_MA0003_01_s _ 2015_8							
Action/Comments							

Control annual grass and weeds on the levee slopes and easements.

Photo 1 of 1: SP\_2015\_MA0003\_195\_8\_20150421\_00011.jpg



Photo of vegetation taken looking upstream at the landside of the levee.

LM Start	0.05	05 Rating ** M		Issue No.		12	
LM End	5.10	Issue Type + Ma		Location *		WS	
Category	Earthen L	GPS Lati	tuc	le/Longitude			
Calegory				Start		End	
Item	Vegetatio	n		38.897874	٥		0
пеш			-121.617092	0		0	
DWR ID	ID DWR_MA0003_01_s _ 2015_12						

Action/Comments

Control annual grass and weeds on the levee slopes and easements.

No Photos

LM Start	0.05	<b>0.05</b> Rating ** M Iss		Issue No.		9	
LM End	0.05	Issue Type + Ma Locat		Location *		CR	
Category	Earthen Levee				atitud	e/Longitude	
Calegory		Start		End			
Item		ırface / Depres	ssions /	38.8978	78 °	38.897878	0
пеш	Rutting			-121.6170	88 °	-121.617088	0
DWR ID DWR_MA0003_01_s _ 2015_9							
	Action/Comments						

Repair depressions or ruts in the crown or slope.

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS : Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement

## Levee Inspection Report By Mile - Spring 2015

## **Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	04/17/2015 04/17/2015	Michael Pitta

LM Start	0.78	Rating **	U	Issue No.		140
LM End	0.78	Issue Type +	Ma	Location *	N/A	
Category	Earthen L	evee		GPS La	titud	de/Longitude
Calegory				Start		End
Item		rface / Depres	ssions /	38.90333	39 °	38.903339°
item	Rutting		-121.606209 °		-121.606209 °	
DWR ID	DWR_MA0003_01_f _ 2014_140					
		A -4: /	C	-1-		

## Action/Comments

Repair depressions or ruts in the crown or slope.

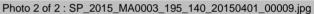
Inspector Comments: There is a sinkhole on the landward toe road approximately 12" in diameter leading to the adjacent drainage ditch.



This photo was taken from the landward levee slope near the toe road facing north looking at an approximately 12" sink hole going from the toe road to the adjacent drainage ditch that parallels the toe road. Fall 2014.

 LM Start
 0.78
 Rating \*\*
 U
 Issue No.
 140 (cont)

 LM End
 0.78
 Issue Type +
 Ma
 Location \*
 N/A





This is another photo of the sink hole to show its relationship to to levee toe, toe road, and drainage ditch. Fall 2014.

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence

En : Enforcement

### Levee Inspection Report By Mile - Spring 2015

### **Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	04/17/2015 04/17/2015	Michael Pitta

LM Start	0.80	Rating **	** M Issue No.		5		
LM End	0.80	Issue Type +	Ма	Location *		LS	
Category Systems				GPS Latitude/Longitude			
Systems			Start		End		
Item	Sluice / S	lide Gates		38.9032	91 °	38.903291	0
item				-121.6057	47 °	-121.605747	0
DWR ID	DWR_MAG	2_5					

#### Action/Comments

Inspector Comments: This pipe leaked during the high water event of 2010/2011.



Levee mile 0.80, this photo is looking at the landside toe, one of these pipes leaked during the high water event of 2010/2011. A flap gate prevents flow from the waterward side to the landward side of the levee.

LM Start	0.80	Rating **	U	Issue No.		1	
LM End	0.80	Issue Type +	En	Location *		LS	
Category				GPS Latitude/Longitude			
Calegory				Start End			
Item	DWR UC	IP Field Study		38.9032	64 °	38.903264 °	
пеш				-121.6056	98 °	-121.605698 °	
DWR ID						·	

#### Action/Comments

Inspector Comments: FS\_ID:45163

DS\_ID:17092 EP\_NO: N/A Repair Type: Urgent Crossing Status: Found

UCIP Comments: 5/12/2015 Watelevel high in WS ditch so could not see WS end of crossing. Do not believe that repairs have been made yefflap gates not visible on waterward headwall and it appears as though they have been replaced by sandbags. Slide gates on LS appear to be closed yet water leaks excessively from the WS at the sandbagged headwat6/21/2013 SBFCA project recommends replacing in accordance with title 25/21/2013 High water levels in WS ditch have pipe ends underwater but repairs have not yet been completed but are planned for when water levels drop0/30/2013 Same as last inspection1/17/2014 Same as last inspection.

FIELD\_STRUCT\_DESC: 1 of 2. 18-inch pipe through the levee, 32.0 feet below the crown. Flap gate on the waterward end. Slide gate on the landward end at concrete headwall. Concrete "U" shaped headwall at the waterward toe. Originally included in O+M manual (1955). FS Date: 05/14/2015

No Photos

## Levee Inspection Report By Mile - Spring 2015

### **Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	04/17/2015 04/17/2015	Michael Pitta

LM Start	0.80	Rating **	U	Issue No.	2			
LM End	0.80	Issue Type +	En	Location *	LS			
Catagony	Category Supplemental				GPS Latitude/Longitude			
Calegory				Start		End		
Item	DWR UC	IP Field Study		38.90326	4 °	38.903264	0	
пеш				-121.60569	8 °	-121.605698	0	
DWR ID								

Action/Comments

Inspector Comments: FS\_ID:45164

DS\_ID:17091 EP\_NO: 13624 Repair Type: Urgent Crossing Status: Found

UCIP Comments: 5/12/2015 Watelevel high in WS ditch so could not see WS end of crossing. Do not believe that repairs have been made ye5/21/2013 SBFCA project recommends replacing in accordance with title 25/21/2013 Hole in slope along outside of standpipe thats about 1 foot deep with moisture in the bottom. Dirt inside standpipe around siphon breaker also wet indicating there may be a leak. Need to investigate source or moisture 0/30/2013 Same as last inspectio5/14/2014 Pipe section that was suspected of leaking was dug up and deemed to be in good condition. No signs of leaks were found1/17/2014 Same as last inspection.

FIELD\_STRUCT\_DESC: 20-inch pipe through the levee 3 feet below the crown. Siphon breaker on the waterward shoulder. Open on waterward end. Pump in ditch on landward side. (Permit No. 13624-D

& D, Inc.)

FS Date: 05/14/2015

No Photos

## **Levee Inspection Report By Mile - Spring 2015**

### **Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	04/17/2015 04/17/2015	Michael Pitta

LM Start	0.80	Rating **	U	Issue No.	3		
LM End	0.80	Issue Type +	En	Location *	LS		
Category				GPS Latitude/Longitude			
Calegory				Start		End	
Item	DWR UC	IP Field Study		38.90326	64 °	38.903264	0
item				-121.60569	98 °	-121.605698	0
DWR ID							

Action/Comments

Inspector Comments: FS\_ID:45165

DS\_ID:17136 EP\_NO: N/A Repair Type: Urgent Crossing Status: Found

UCIP Comments: 5/12/2015 Watelevel high in WS ditch so could not see WS end of crossing. Do not believe that repairs have been made vefflap gates not visible on waterward headwall and it appears as though they have been replaced by sandbags. Slide gates on LS appear to be closed yet water leaks excessively from the WS at the sandbagged headwaß/21/2013 SBFCA project recommends replacing in accordance with title 23/21/2013 High water levels in WS ditch have pipe ends underwater but repairs have not yet been completed but are planned for when water levels drop0/30/2013 Same as last inspectio 5/14/2014 Same as last inspection1/17/2014 Same as last inspection.

FIELD\_STRUCT\_DESC: 2 of 2. 18-inch pipe through the levee, 32.0 feet below the crown. Flap gate on the waterward end. Slide gate on the landward end at concrete headwall. Concrete "U" headwall at the waterward toe. Originally included in O+M manual (1955).

FS Date: 05/14/2015

No Photos

LM Start	1.51	Rating **	М	Issue No.	13			
LM End	1.51	Issue Type +	Ma	Location *	CR			
Category	Earthen L	evee		GPS La	atitud	e/Longitude		
Calegory				Start End				
Item		rface / Depres	ssions /	38.9046	80°	38.904680	0	
item	Rutting			-121.5942	29 °	-121.594229	0	
DWR ID	DWR_MA0	DWR_MA0003_01_s _ 2015_13						
	Action/Comments							

Repair depressions or ruts in the crown or slope.



Photo of a depression in the crown, taken looking at the landside.

A: Acceptable : Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated : Corrected

Issue Type Ma : Maintenance Deficiancy Ob: Design & System Obsolescence En : Enforcement

MA0003

#### Flood Control Project Maintenance Levee Inspections

## Levee Inspection Report By Mile - Spring 2015

### **Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	04/17/2015 04/17/2015	Michael Pitta

LM Start	1.77	Rating **	М	Issue No.		14		
LM End	1.77	Issue Type +	Ма	Location *	LS			
Catagony	Category Earthen Levee			GPS Latitude/Longitude				
Calegory				Start		End		
Item	Animal Co	ontrol		38.90702	25 °	38.907025	0	
пеш				-121.59037	'5 °	-121.590375	0	
DWR ID	DWR_MA0003_01_s _ 2015_14							
	Action/Comments							

No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Rating \*\* Issue No. LM Start 2.18 Μ 15 LM End 2.18 Issue Type + Ma Location \* LS Earthen Levee GPS Latitude/Longitude Category Start End Trim / Thin Trees 38.911869° 38.911869 ° Item -121.586093 ° -121.586093 ° DWR ID DWR\_MA0003\_01\_s \_ 2015\_15 Action/Comments

Trim trees to at least five feet above ground level.

Rating \*\* 2.18 Μ Issue No. LM Start Location \* 2.18 Issue Type + Ма LS LM End Earthen Levee GPS Latitude/Longitude Category **Animal Control** 38.911869° 38.911869 Item -121.586093 ° -121.586093 ° DWR ID DWR\_MA0003\_01\_s \_ 2015\_18 Action/Comments

No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

No Photos

No Photos

No Photos

\*\* Rating

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

\*\* Rating

A: Acceptable N: Not Inspected/Rated M: Minimally Acceptable C: Corrected Ob: Design & System Obsolescence

U: Unacceptable A/W: Acceptable but Monitor & Maintain En: Enforcement

## Levee Inspection Report By Mile - Spring 2015

### **Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	04/17/2015 04/17/2015	Michael Pitta

LM Start	2.19	Rating **	М	Issue No.	21	
LM End	2.19	Issue Type +	En	Location *	LS	
Category	Supplemental			GPS Lat	tuc	le/Longitude
Calegory	Oly			Start		End
Item	DWR UC	IP Field Study		38.91173	1 °	38.911734
пеш				-121.58610	°	-121.586106 °
DWR ID						

Action/Comments

Inspector Comments: FS\_ID:45168

DS\_ID:17088 EP\_NO: 3284

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 5/12/2015 Only the right flapgate appeared to be abandoned. The left and middle flap gates were flowing water during the last inspection umping plant has been disconnected from levee. Need to determine if abandonment is appropriate or if this is now a gravity drain with flap gate/21/2013 Pumping plant was running and filling concrete vault on WS toe through the left flap gate and then flowing through levee pipe and filling irrigation ditch on LS. Left and middle flap gates appear to be connected to pumps and right gate appears abandoned. Recommend contacting owner to get more details 0/30/2013 Same as last inspection 1/1/2014 Same as last inspection.

FIELD\_STRUCT\_DESC: 32-inch by 32-inch concrete box culvert through the levee approximately 28 feet below the crown. Transition between vault on RS and box culvert within levee section is made with a 41-inch CMP. Slide gate on LS at concrete headwall. Flap Gate in concrete vault on RS at terminal of pipes from pump structure in floodway. Pipes from pump station in creek be no longer connected. (Permit No. 3284)

FS Date: 05/14/2015

No Photos

LM Start	2.19	Rating **	U	Issue No.	141	
LM End	2.19	Issue Type +	En	Location *	LS	
Category Earthen Levee			GPS La	titud	le/Longitude	
Calegory		Start		End		
Item	Encroach	ments		38.9120	27 °	38.912027 °
пеш				-121.5859	41 °	-121.585941 °
DWR ID DWR_MA0003_01_f _ 2014_141						
Action/Comments						

Prunings

### Photo 1 of 1: SP\_2015\_MA0003\_195\_141\_20150401\_00010.jpg



This photo was taken from the crown facing north looking down the landward levee slope at pruning piles located at the levee toe that need to be removed. Fall 2014.

\*\* Rating

LS: Land Side N/A: Not Applicable
WS: Water Side
CR: Crown

\*\* Rating
A: Acceptable
N: Not Inspected/Rated
M: Minimally Acceptable
C: Corrected
C: Cor

# Levee Inspection Report By Mile - Spring 2015

### **Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	04/17/2015 04/17/2015	Michael Pitta

LM Start	3.20	Rating **	М	Issue No.	20		
LM End	3.20	Issue Type +	Ма	Location *	LS		
Category Earthen Levee			GPS Latitude/Longitude				
Calegory				Start		End	
Item	Slope Sta	bility		38.92590	)9 °	38.925909	0
пеш				-121.58540	)1 °	-121.585401	0
DWR ID DWR_MA0003_01_s _ 2015_20							
Action/Comments							

Repair slope instability.



Photo of slope on the landside faceing upstream, areas with little vegetation appear to have eroded leaving the crown smaller.

LM Start	3.59	Rating **	М	Issue No.		19
LM End	3.59	Issue Type +	Ma	Location *		LS
Catagonia Earthen Levee			GPS La	titud	le/Longitude	
Calegory	Category					End
Item	Vegetatio	n		38.9300	63 °	38.930063 °
item	tem				11 °	-121.590211 °
DWR ID DWR_MA0003_01_f _ 2013_19						
Action/Comments						

Elderberries are blocking visibility and flood fight capability.
Inspector Comments: Elderberries on the landward levee toe.



This photo was taken from the levee crown facing south looking down the landward levee slope at a group of Elderberries. Fall 2013.

LM Start	4.15	Rating **	М	Issue No.		10		
LM End	4.18	Issue Type +	Ма	Location *	WS			
Category	Supplemental			GPS Lati	tud	e/Longitude		
Calegory			Start		End			
Item	USACE E	rosion Survey	′	38.937454	°	38.937937 °		
пеш				-121.588544	0	-121.588471 °		
DWR ID	VR ID DWR_MA0003_01_f _ 2014_10							
	A - 1 1 O 1 -							

Action/Comments

Inspector Comments: 2013: Minor toe scour causing gradual erosion of bank slope. Site is within ecological reserve. [2013 Site ID: FHR\_12-3\_R]



USACE 2013 Photo #1

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Levee Inspection Report By Mile - Spring 2015

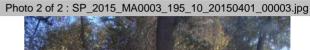
## **Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	04/17/2015 04/17/2015	Michael Pitta

LM Start	4.15	Rating ** M		Issue No.		10 (cont)								
LM End	4.18	Issue Type + Ma Location *		Issue Type + Ma Location *		Issue Type + Ma Location		<b>4.18</b> Issue Type +		Location *		ssue Type + Ma Location *		WS
Supplemental GPS Latitude/				le/Longitude										
Category			Start		End									
Item	USACE E	rosion Survey	38.9374	54 °	38.937937 °									
пеш			-121.58854	14 °	-121.588471 °									
DWR ID	DWR_MA0003_01_f _ 2014_10													

#### Action/Comments

Inspector Comments: 2013: Minor toe scour causing gradual erosion of bank slope. Site is within ecological reserve. [2013 Site ID: FHR\_12-3\_R]





USACE 2013 Photo #2

LM Start	4.71	Rating ** M		Issue No.		11			
LM End	4.76	Issue Type +	Ma	Location *		Location *		WS	
Category	Supplemental			GPS La	atitud	le/Longitude			
Calegory				Start		End			
Item	USACE E	rosion Survey	,	38.9451	90°	38.945967	0		
item			-121.5860	73 °	-121.586328	0			
DWR ID	DWR ID DWR_MA0003_01_f _ 2014_11								

#### Action/Comments

Inspector Comments: 2013: Minor toe scour causing gradual erosion into the bank slope [2013 Site ID: FHR\_12-8\_R]

Photo 1 of 2: SP_2015_MA0003_	195_11	_20150401	_00004.jpg
			<b>全</b>
	THE REAL PROPERTY.		100
	NE THE SECOND		1000
		<b>选为</b> 。	
	-1900		
			<b>新</b> 在方
<b>经验证证明</b>		19	集的准定
			<b>"</b>
	CALL.		
	1	\$100 P. P.	
· 147	STATE OF STREET	A CHARLEST CONTRACTOR	

USACE 2013 Photo #1

LM Start	4.71	Rating **	М	Issue No.	11 (cont)
I M End	4.76	Issue Type +	Ma	Location *	WS

Photo 2 of 2: SP\_2015\_MA0003\_195\_11\_20150401\_00005.jpg



USACE 2013 Photo #2

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement